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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,159	09/12/2003	Cristian A. Lopez	020569-05801(P202-1294-US	8725

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EXAMINER

PEZZUTO, HELEN LEE

ART UNIT PAPER NUMBER

1713

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/662,159

Applicant(s)

LOPEZ ET AL.

Examiner

Helen L. Pezzuto

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 26-29 and 31-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25, 30 and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-36 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/12/03, 6/21/04</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

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**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election with traverse of Group I, claims 1-25, 30, and 36 in the reply filed on 11/7/05 is acknowledged. The traversal is on the ground(s) that the basis for the restriction is unclear. This is not found persuasive because the intermediate product composition defined by claims expressed in Group I can be used in other applications other than to enhance the thermal insulation of a production tubing or transfer pipe. Other distinct final product species comprising the intermediate product include coating material, a fiber-reinforced composite or other construction material.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 26-29, and 31-35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/7/05.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-25, 30, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Unger et al. (US-082) or Jones et al (US-886) or Ishii et al. (US-651) or Nakashita et al. (US-336).

US 5,502,082 to Unger et al. discloses a crosslinked article having enhanced thermal insulating property, derived from a hydrogel polymer (abstract). Suitable hydrogel polymer taught include natural (i.e. starch, gums) and synthetic polymer (i.e. starch graft copolymers) (col. 2, lines 11-36; col. 5, lines 12-51; Examples 4 and 8) and mixtures thereof, in an effective amount of 0.02% to 15% (col. 5, lines 55-65). Polyols are disclosed in terms of solvent additives and drying control chemical agents (col. 2, lines 55-61; col. 7, lines 3-11; col. 11, lines 58-61). Gelling agent disclosed within the scope of the instant crosslinking agent include boric acid/borate, chemical crosslinking agents, and polycationic species as expressed in the present claims (col. 5, line 66 to col. 6, line 51; col. 10, lines 15 to col. 11, line 24; working Examples). Accordingly, it would have been obvious to one skilled in

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the art to employ a mixture of hydrogel polymers, disclosed within the scope of the instant water-superabsorbent polymer and viscosifying polymer, motivated by the expectation of thermal insulation improvement as taught. The absorbency expressed in claims 2-5 is considered inherent property in prior art hydrogel composition in light of the identical material used. The burden is placed upon the applicant to provide clear evidence that the respective compositions do in fact differ.

US 6,908,886 B2 to Jones et al. discloses an insulating annular fluid or packer fluid comprising a water-miscible solvent, a viscosifying additive, a crosslinking agent, a crosslinking inhibitor and an initiating agent (col. 1, lines 12-15; col. 14, lines 38-49; col. 15, lines 16-23; col. 18, lines 15-18). Specifically, water-miscible solvent include various glycols such as ethylene and propylene glycol (col. 4, lines 11-14; col. 12, lines 4-26; working examples). Viscosifying agent include both natural and synthetic biopolymers within the scope of the instant superabsorbent polymer and viscosifying polymer (cols.4-5, Example 1; col. 12, lines 28-40; col. 15, line 61 to col. 17, line 37). Suitable crosslinking agents are expressly taught within

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the scope of the present claims (col. 12, lines 27-61; col. 17, lines 38-52). Prior art expressively teaches that a variety of polymers and crosslinking agent can be employed within patentees' invention (col. 15, lines 61-67).

Accordingly, it would have been obvious to one having ordinary skill in the art to use a mixture of natural and synthetic polymers as taught for the expected additive results in thermal insulation enhancement, absent evidence of the contrary. Once the suggestion of various ingredients is provided, one skilled in the art would have readily envisage the optimum or workable ranges within prior art general conditions. The absorbency of the superabsorbent polymer is considered inherent in the prior art as discussed above.

US 5,965,651 to Ishii et al. discloses a liquid-absorbing material composition having enhanced thermal stability (col. 20, lines 23-28). Prior art composition comprises a crosslinking agent, an N-vinylcarboxamide copolymer, water, water-soluble organic solvent and a plasticizer (col. 2, lines 26-54; col. 5, lines 29-43; col. 10, lines 36-49; col. 16, lines 15-25). Prior art further discloses natural and synthetic hydrophilic polymers within the scope of the instant superabsorbent polymer and

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viscosifying polymer (col. 16, lines 26-59; col. 21, lines 3-20; working Examples). Accordingly, it would have been obvious to one having ordinary skill in the art to use a mixture of natural and synthetic hydrophilic polymers as taught for the expected additive results in thermal insulation enhancement, in light of their having been disclosed as suitable hydrophilic polymer alternatives by patentees. Absent evidence of unusual or unexpected results, no patentability can be seen in using a mixture of hydrophilic polymers wherein each is used for the same purpose by the prior art. Once the suggestion of various components is provided, one skilled in the art would have readily envisage the optimum or workable ranges within prior art general conditions. The absorbency of the superabsorbent polymer is considered inherent in the prior art as discussed above.

Similarly, US 5,077,336 to Nakashita et al. discloses a insulating composition comprising polyvinyl chloride, a plasticizer, a water-absorbing gel (abstract). Suitable water-absorbing polymer include natural and synthetic polymer species (col. 2, lines 10-36; col. 3, lines 25-39) within the scope and function of the instant superabsorbent polymer and viscosifying polymer. Patentees teach using 0.1-

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5.5 parts by weight of the water-absorbing polymer based on 100 parts of water. Curing/crosslinking agents are disclosed within the scope of the instant crosslinking agents, and ethylene glycol or diethylene glycol are taught to be suitable co-solvent with water (col. 3, lines 47-62). Accordingly, it would have been obvious to one having ordinary skill in the art to use a mixture of natural and synthetic water-absorbing polymers as taught for the expected additive results in excellent heat-insulation properties, in light of their having been disclosed as suitable water-absorbing polymer alternatives by patentees. Absent evidence of unusual or unexpected results, no patentability can be seen in using a mixture of hydrophilic polymers wherein each is used for the same purpose by the prior art.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

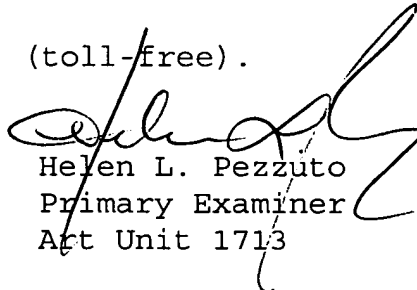
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached



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on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Helen L. Pezzuto  
Primary Examiner  
Art Unit 1713

hlp